

Assets Management Data Standards

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CADD/GIS Technology Center

Internet URL : <http://tsc.wes.army.mil>

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SDSFIE & FMSFIE

Spatial Data Standard for facilities, infrastructure, & environment (SDSFIE) -

- CADD/GIS Technology Center Project No. 96.013.
- Website - <http://tsc.wes.army.mil/products/TSSDS-TSFMS/tssds/html/>
- Called Tri-Service Spatial Data Standards (TSSDS) prior to July 1999. Acronym SDS was used from July 1999 until January 2001. Acronym changed to SDSFIE in January 2001.

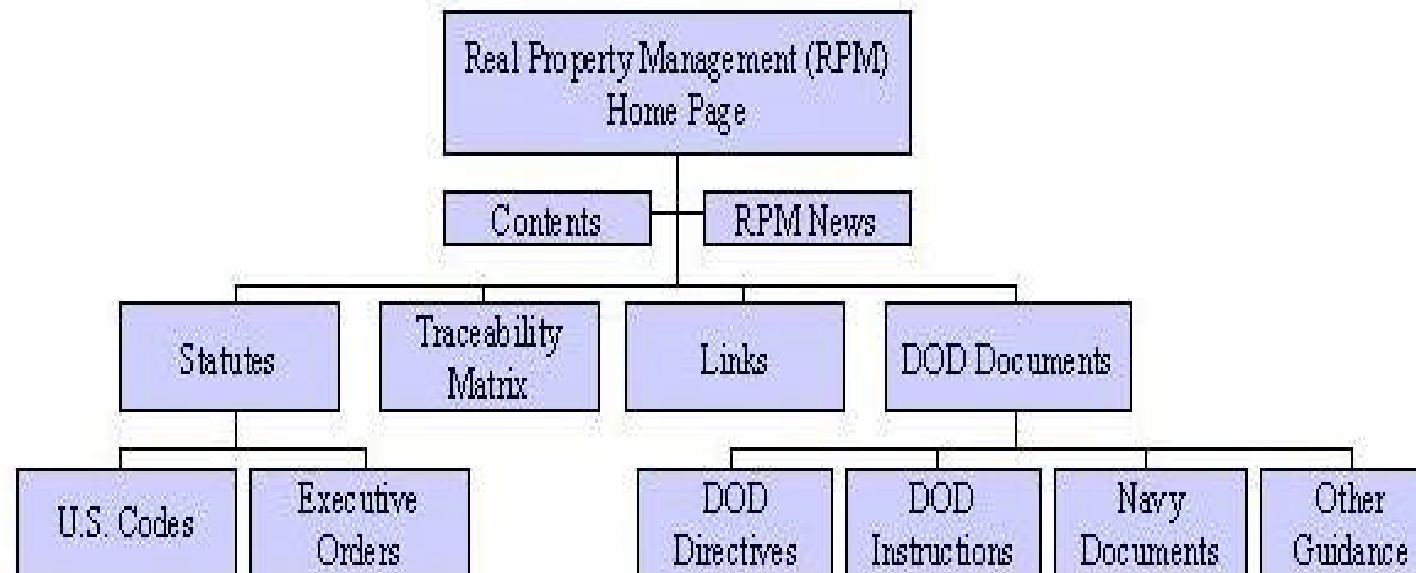
Facility Management Standard for facilities, infrastructure, & environment (FMSFIE) -

- CADD/GIS Technology Center Project No. 96.015.
- Website - <http://tsc.wes.army.mil/products/tssds-tsfmts/fms/fmsprods.asp>
- Called Tri-Service Facility Management Standards (TSFMS) prior to July 1999. Acronym FMS was used from July 1999 until January 2001. Acronym changed to FMSFIE in January 2001.

Facility Management Standard (FMSFIE)

Federal Real Property Management Web Site –

- Web Site developed to support Federal and DOD components in their effort to comply with the numerous U.S. Codes and Executive Orders governing the acquisition, maintenance, and disposal of Real Property holdings.
- Web Site URL - <http://tsc.wes.army.mil/rpm/>.



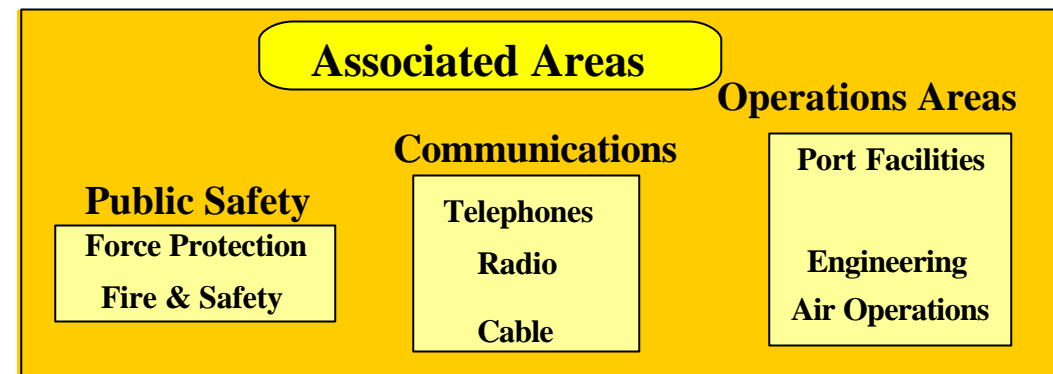
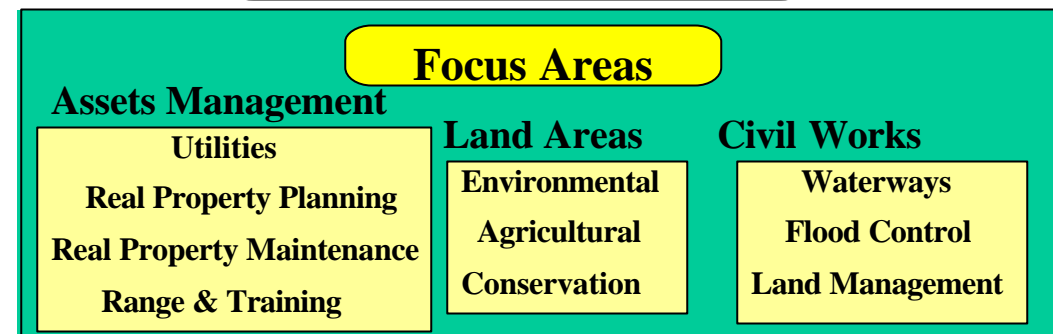
96.015 – Facility Management Standard (FMSFIE)

FM Strategic Plan –

- Provides goals and objectives for development of FMSFIE.
- Provides plan for migrating FMSFIE to a transactional data model.



Transactional FMSFIE Focus Areas



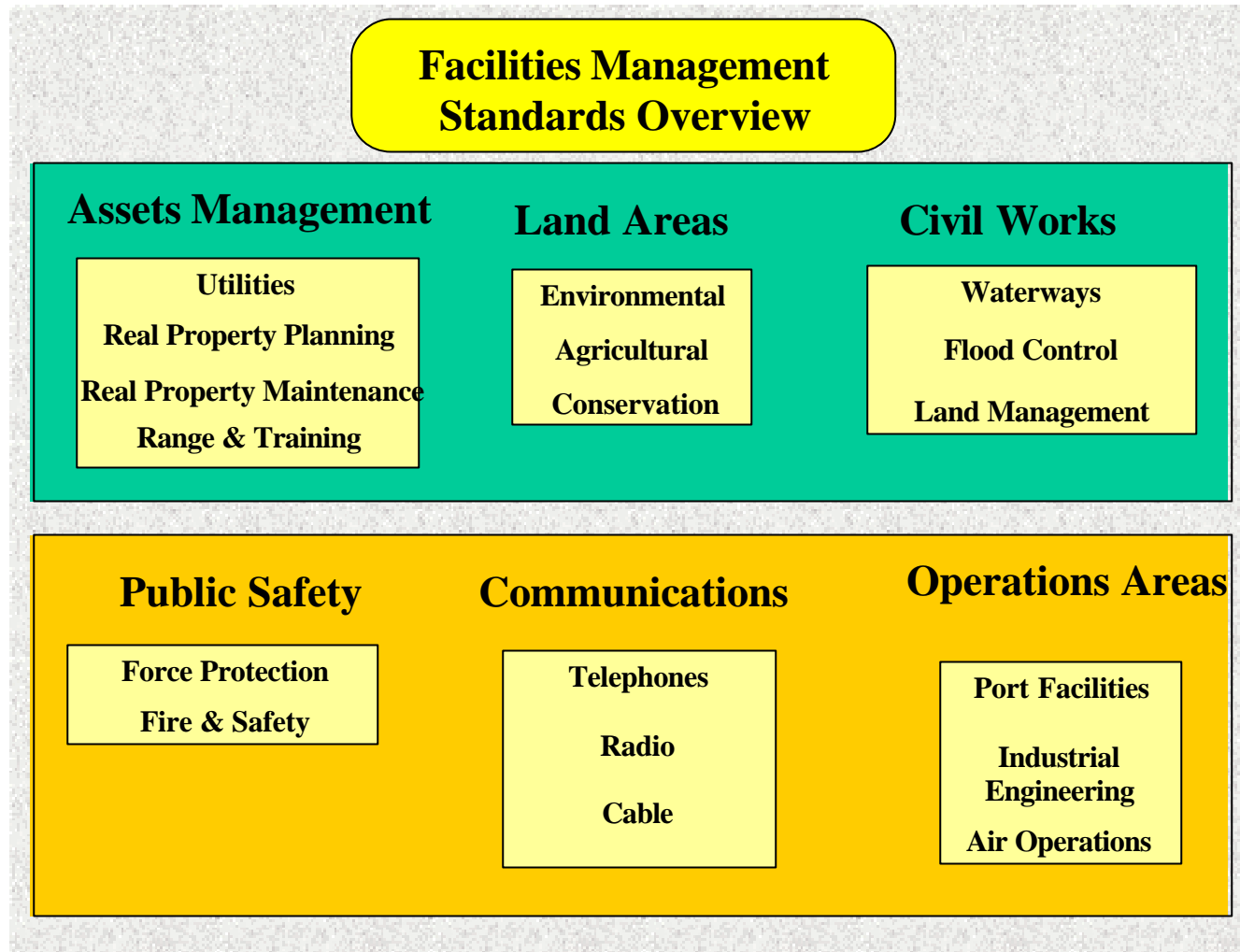
FM Strategic Plan

- The FMSFIE will consist of a relational database schema and data dictionary for data describing the control and reporting of real property and derived entities that must be considered in its use.
- provides overall guidance for developing and managing data standards for FM while working toward a object orientation
- establishes the shared vision for FM by outlining the goals, and associated objectives and strategies to accomplish the standardization of FM data.
- This will be defined by the Core Focus Areas and Associated areas.

96.015 – Facility Management Standards (FMSFIE) – Focus Areas for New “Transactional” Data Model Development

Focus areas This is within the Facilities, Infrastructure and Environment Business Plan for the Center

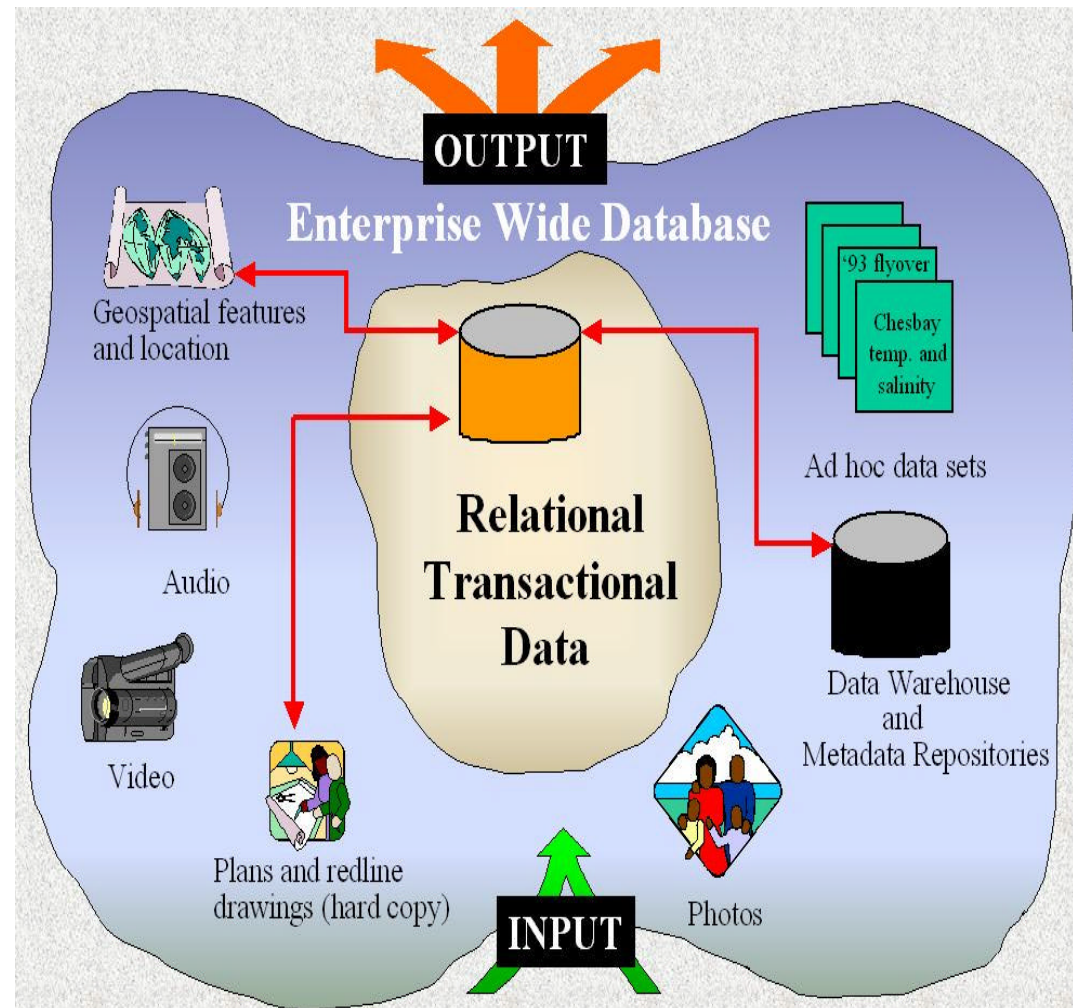
Work with the **Associated areas** as the need to support the **Focus area** development.



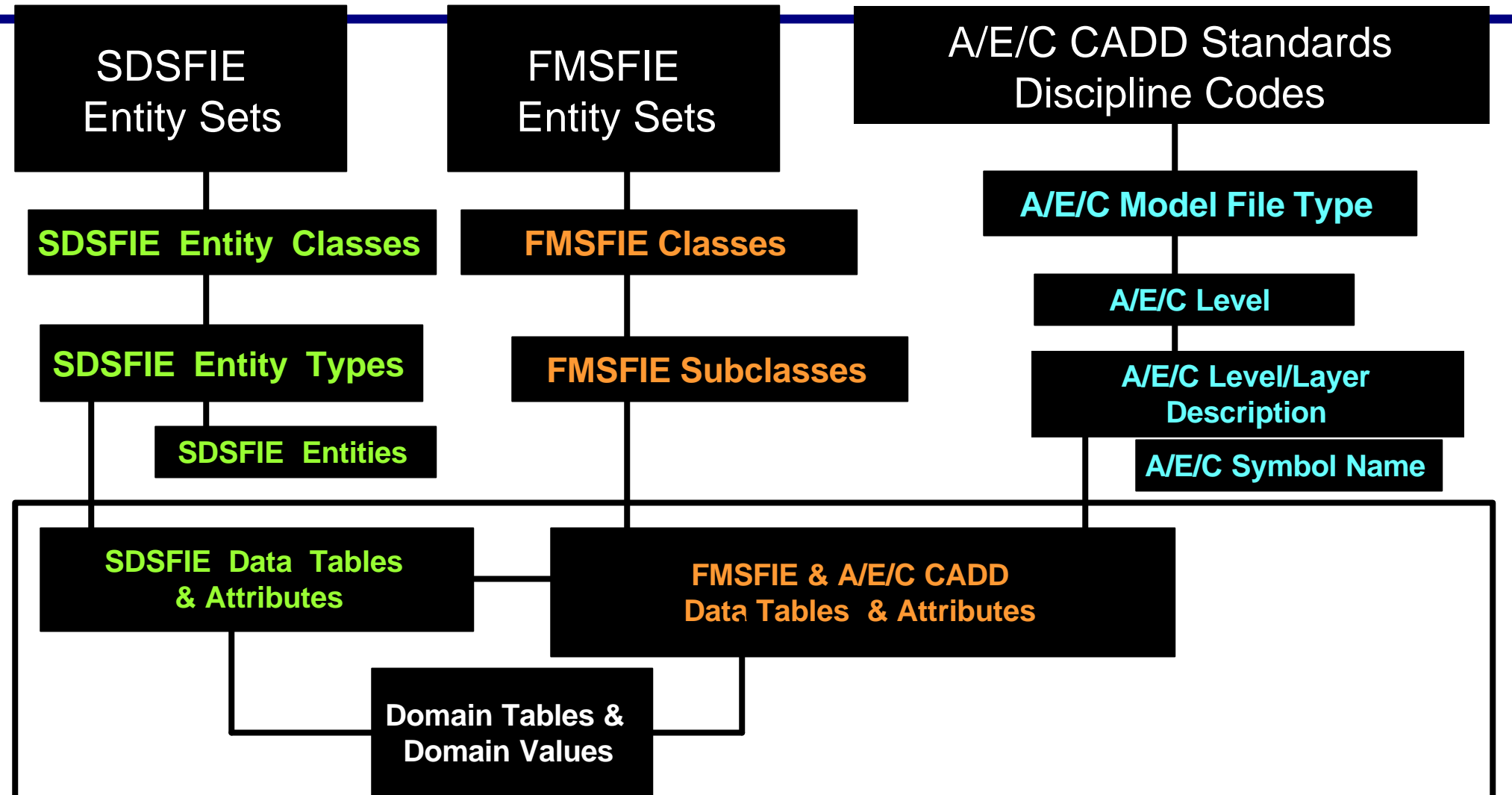
Facility Management Standard (FMSFIE)

Transactional FMSFIE –

- Will be designed for management of life-cycle FM data.
- Will be designed to share data (be integrated) with both GIS (the SDSFIE) & CADD (A/E/C CADD Standards) technology.
- Will be designed for implementation on an enterprise (i.e., installation wide) relational database.



New CADD/GIS/FM Standards for Facilities, Infrastructure, & Environment (FIE) Data Model

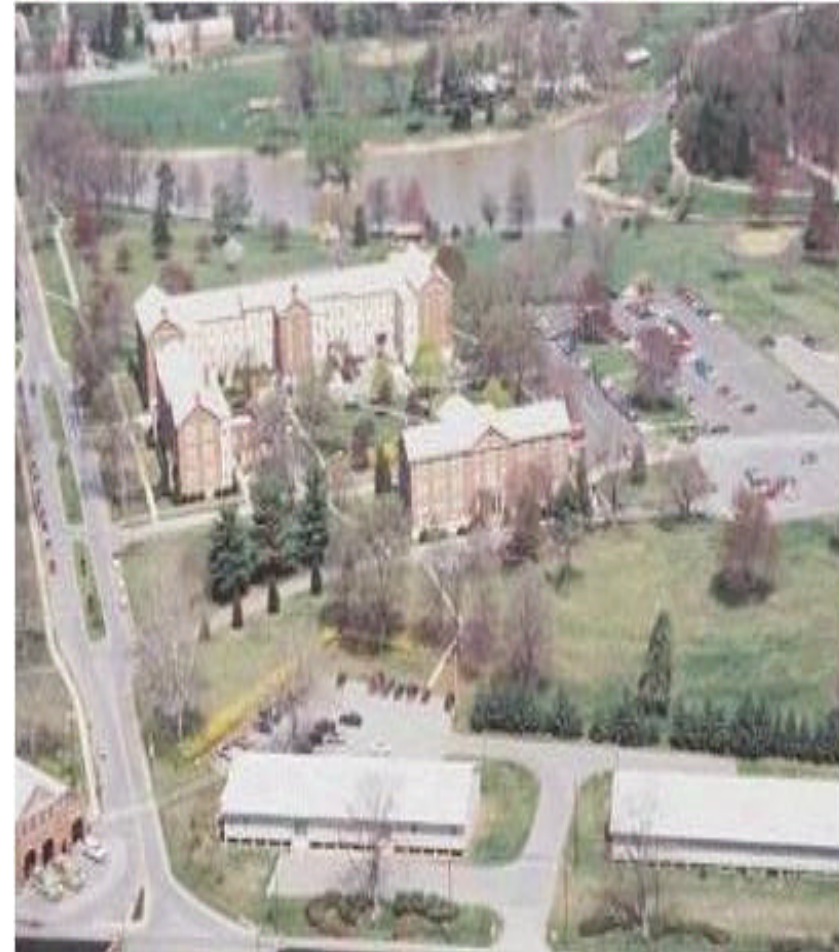


CADD/GIS/FM Standards Compliant Database = One Integrated Relational Database Structure

Facility Management Standard (FMSFIE)

Transactional FMSFIE –

- Will include seven Entity Sets:
 - Assets
 - Work
 - Environmental
 - Organization
 - Public Safety
 - Information Security
 - Financial
- Guidelines for development determined by FM Focus Group.



Transactional FMSFIE Definitions

Assets: items comprising an inventory of federal real property and other related entities based on classification and need to support organizational requirements. Includes:

- (1) tangible physical items comprising the inventory of federal real property that can be referenced by location;
- (2) non-tangible items that cannot always be defined by a location, or do not exist as an inventory item in the real property management inventory.

WorkExecution: change management that consists of planning, programming, acquisition, operations, maintenance, revitalization, evaluation, and disposal actions affecting real property (assets) and other related entities.

Transactional FMSFIE Definitions

Financial: planning, programming, and execution of appropriations associated with real property management

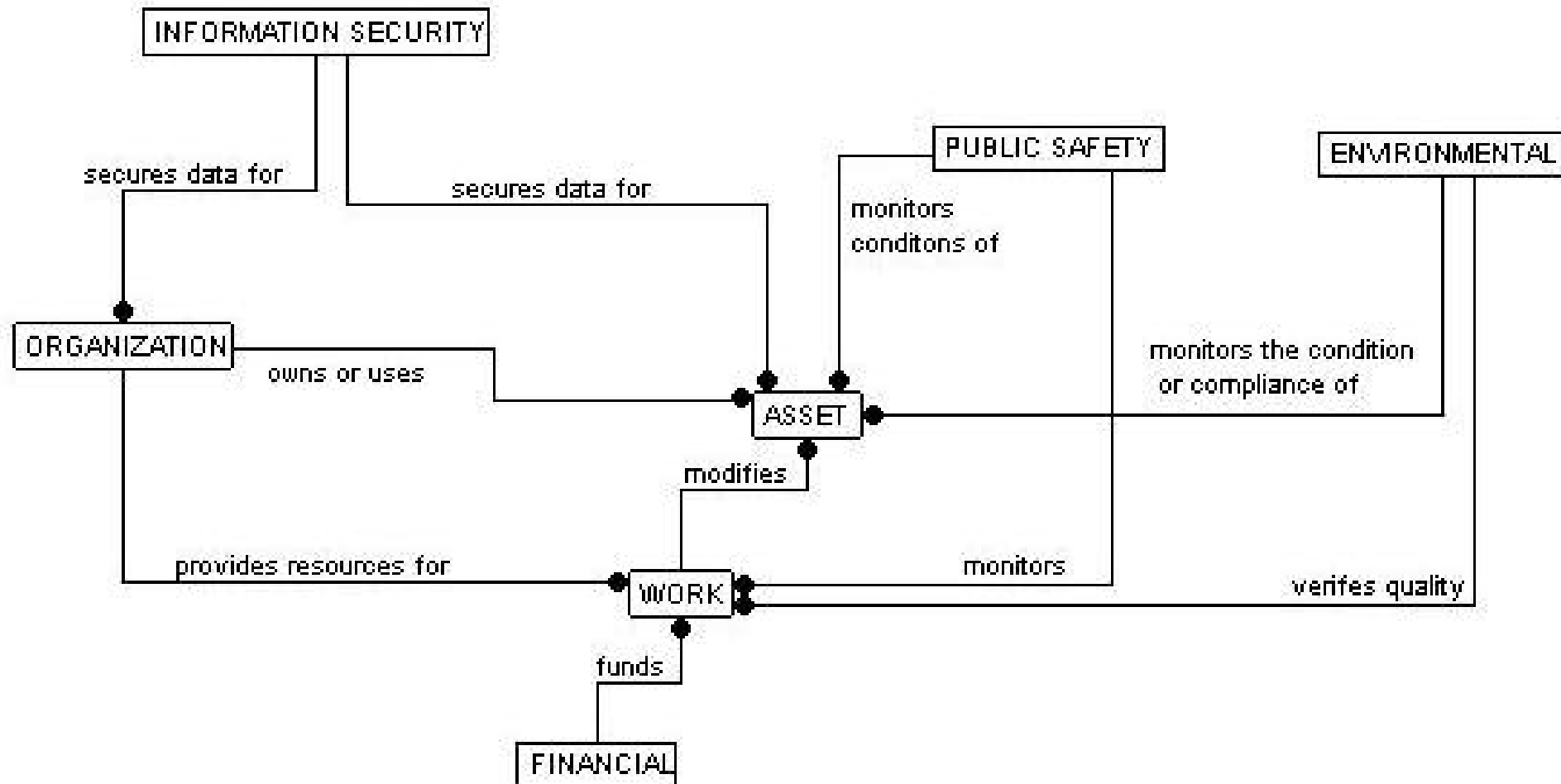
Environmental: defines the stewardship responsibilities as they relate to the environmental management practices.

Public Safety: Issues related to the protection of personnel and property

Organization: a structured grouping of personnel and the roles they perform as it relates to an integrated work environment

Information Security: controlled access to data and information as it relates to the roles of personnel.

Conceptual “Transactional” FMSFIE Logical Model



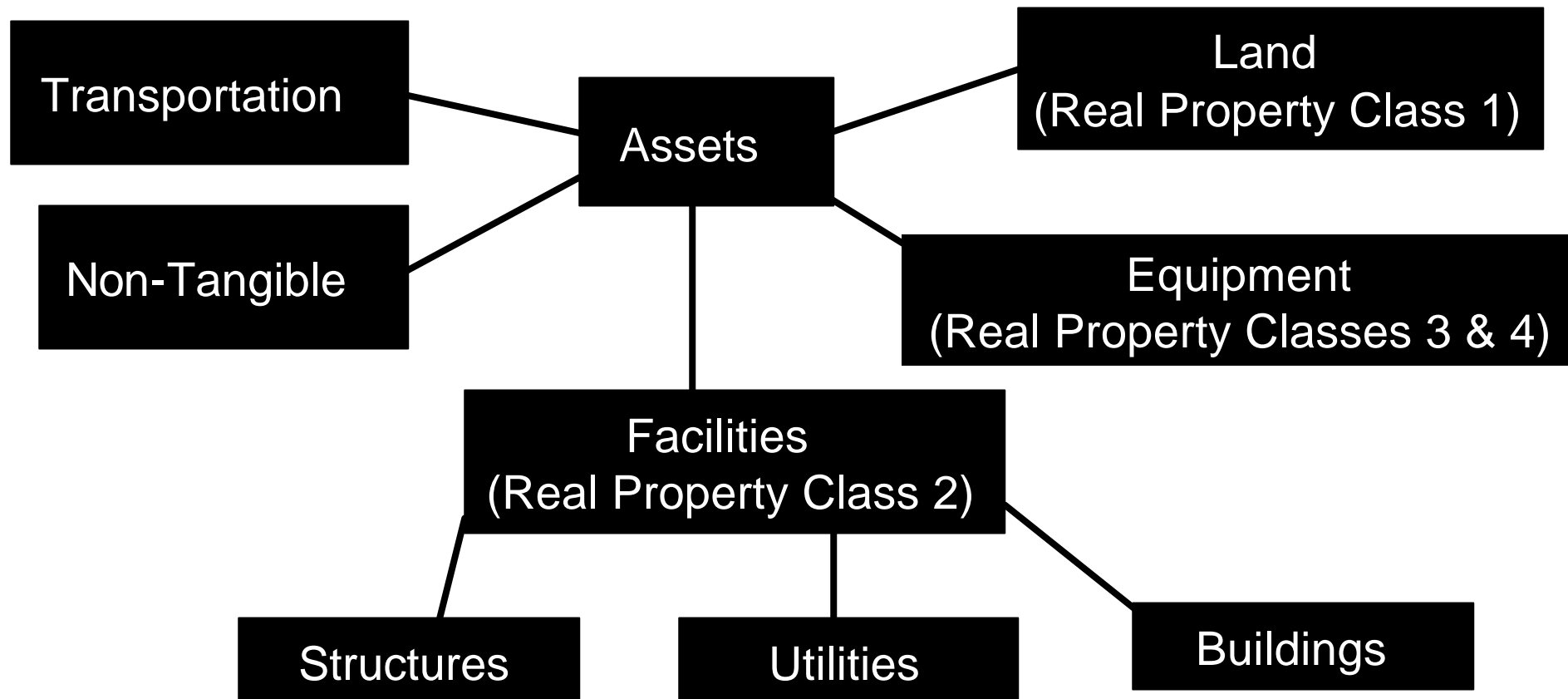
FMSFIE Entity Set Definitions – Assets Entity Set

Assets: items comprising an inventory of federal real property and other related entities based on classification and need to support organizational requirements. Includes:

- (1) tangible physical items comprising the inventory of federal real property that can be referenced by location;
- (2) non-tangible items that cannot always be defined by a location, or do not exist as an inventory item in the real property management inventory.

Facility Management Standard (FMSFIE)

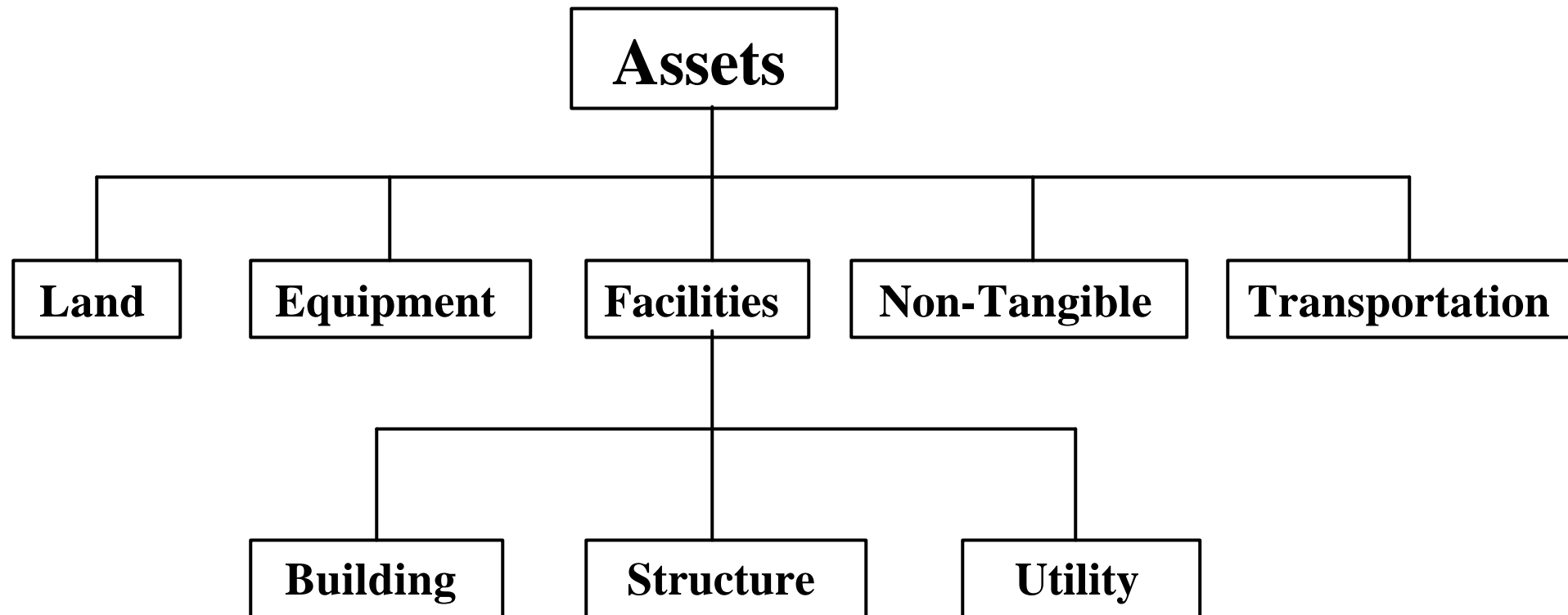
Conceptual “Transactional” FMSFIE Assets Entity Set



Facility Management Standard (FMSFIE)

Develop Transactional Assets Entity Set:

- Assets Development Web Site - <http://tsc.wes.army.mil/products/tssds-tsfmts/fms/projects/assets/assets.htm>



Facility Management Standard (FMSFIE)

Develop Transactional Assets Entity Set:

- FY01 - Identified DoD FM Legal Reporting Requirements (for Assets) based upon DoD & Federal Information Management Systems (e.g., Army IFS-M, Air Force IWIMS, Navy NFADB, Coast Guard CEDS)

The CADD/GIS Technology Center

Facility Management Standard (FMSFIE)

for facilities, infrastructure, and environment

Integration of DoD FM "Assets" Legal Reporting Requirements

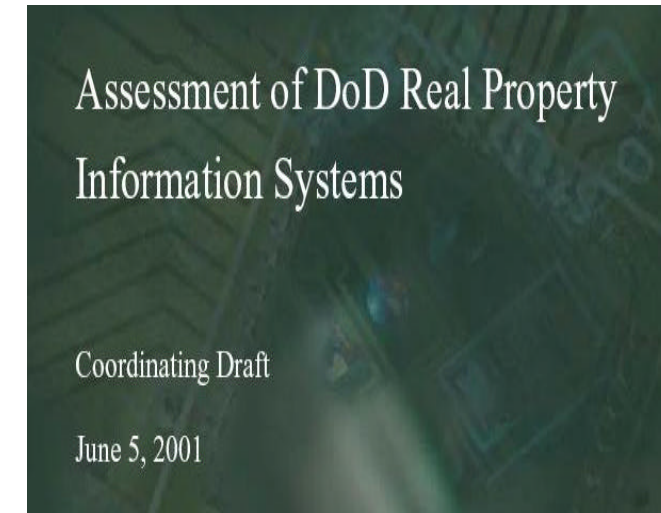
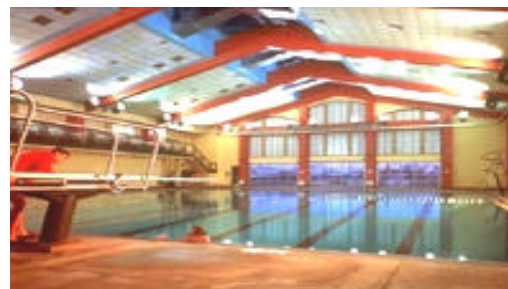
This effort involves the investigation and development of detailed "correlations" between Department of Defense (DoD) facility management databases for the purpose of incorporation, or integration (i.e., linking) with the SDSFIE & FMSFIE, and for development of the new "transactional" FMSFIE.

	<u>Army "Assets" Legal Reporting Requirements</u>
	<u>Air Force "Assets" Legal Reporting Requirements</u>
	<u>Navy "Assets" Legal Reporting Requirements</u>
	<u>Coast Guard "Assets" Legal Reporting Requirements</u>
	<u>GSA "Assets" Legal Reporting Requirements</u>
	<u>OSD "Assets" Legal Reporting Requirements</u>
	<u>USACE "Assets" Legal Reporting Requirements</u>

Facility Management Standard (FMSFIE)

Develop Transactional Assets Entity Set:

- November 2001 – Logical Data Models completed for Facilities (General), and Buildings Focus (Architectural, Structural, Electrical, & Interior).
- December 2001 – Incorporated OSD Legal Reporting Requirements from “Assessment of DoD Real Property Information Systems” Report, June 2001.



Facility Management Standard (FMSFIE)

Develop Transactional Assets Entity Set:

- Remainder of FY02 –
 - Complete Logical Data Models for Facilities – Buildings Focus (Plumbing, HVAC, Telecommunications, Fire Protection/Suppression, & Security).
 - Begin Development of Logical Data Models for Utilities Focus.
 - Begin Development of Logical Data Models for Structures Focus (Roads & Airfields).
 - Begin Development of Logical Data Models for Transportation (Operational Focus).
 - Begin Development of Physical Data Models.



Facility Management Standard (FMSFIE)

Conceptual Assets Entity Set – Classes (Proposed)

Class	Definition
Facility	Inventory of tangible real property improvements to land, e.g., buildings, structures, ground improvement structure, & utilities. (DoD Real Property - Class 2)

Facility Management Standard (FMSFIE)

Conceptual Assets Entity Set – Classes (Proposed) (Cont.)

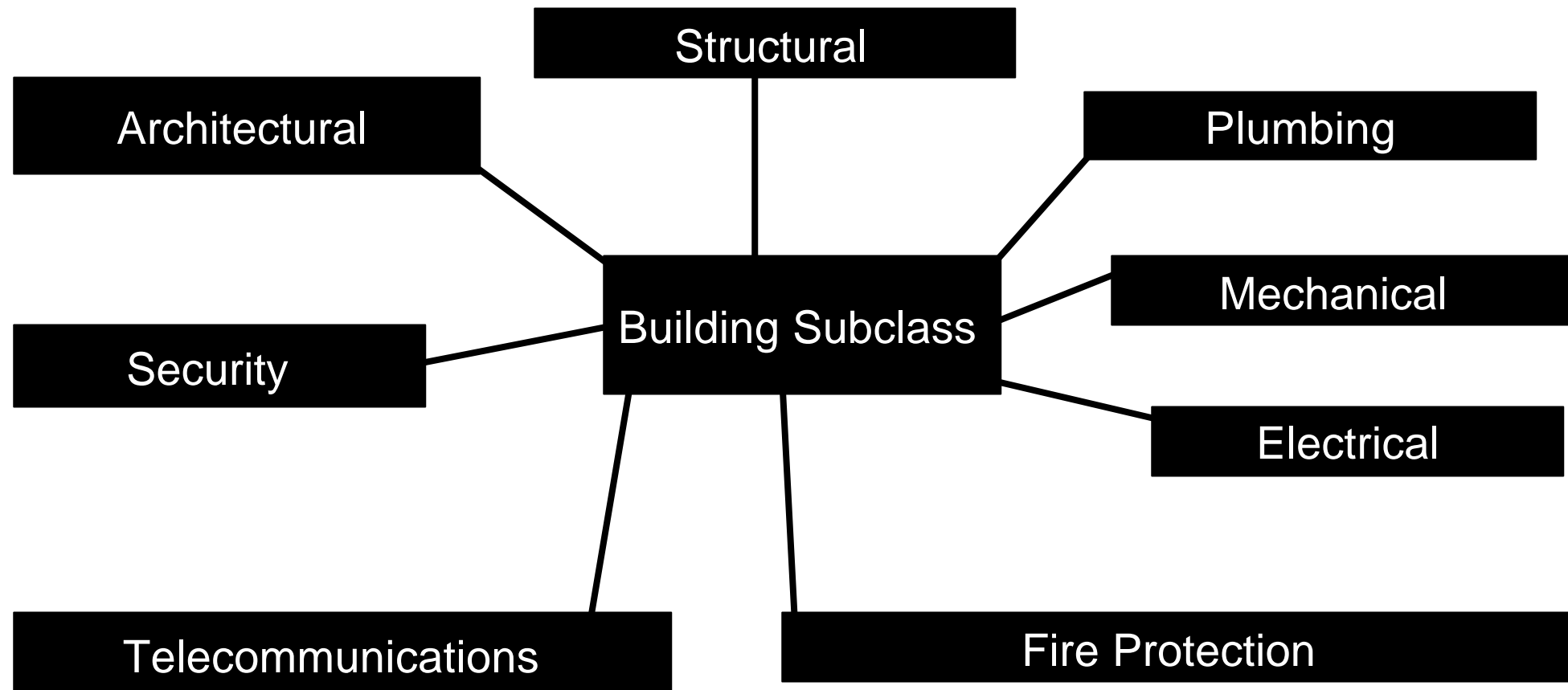
Class	Definition
Land	Inventory of tangible real property associated with land. (DoD Real Property - Class 1)
Equipment	Inventory of personal property and plant equipment. (DoD Real Property - Class 3)
Transportation	Inventory of transportation equipment.
Non-Tangible	Inventory of items which cannot always be defined by a location, or do not exist as an inventory item in the real property management inventory.
Asset	Contains parent tables for Assets Entity Set Classes

Facility Management Standard (FMSFIE)

Conceptual Facility Class – Subclasses (Proposed)

Class	Definition
Building	Inventory of tangible real property improvements which comprise the components of a building. Includes utilities located within a building. (DoD Real Property - Class 2)
Utility	Inventory of tangible real property improvements which comprise the components of a utility. Includes utilities located exterior of buildings. (DoD Real Property - Class 2)
Structure	Inventory of tangible real property ground improvements structures not associated with a building or utility. (DoD Real Property - Class 2)

Facility Management Standard (FMSFIE)



**Conceptual Facility Class –
Building Subclass Framework (Proposed)**

Facility Management Standard (FMSFIE)

Conceptual Building Subclass – Architectural Focus Area – Data Content (Proposed)

Focus Area	Type of Data to Address
Architectural	Floor
	Roof
	Window Schedule
	Door Schedule
	Finish Plan/Schedule
	Ceiling
	Wall

Facility Management Standard (FMSFIE)

Conceptual Building Subclass – Structural Focus Area – Data Content (Proposed)

Focus Area	Type of Data to Address
Structural	Foundation
	W all Framing
	R oof Framing
	C olumns
	F ootings
	Piling

Facility Management Standard (FMSFIE)

Conceptual Building Subclass – Plumbing Focus Area – Data Content (Proposed)

Subclass	Type of Data To Address
Plumbing	Piping
	Valves
	Fixtures
	Fittings

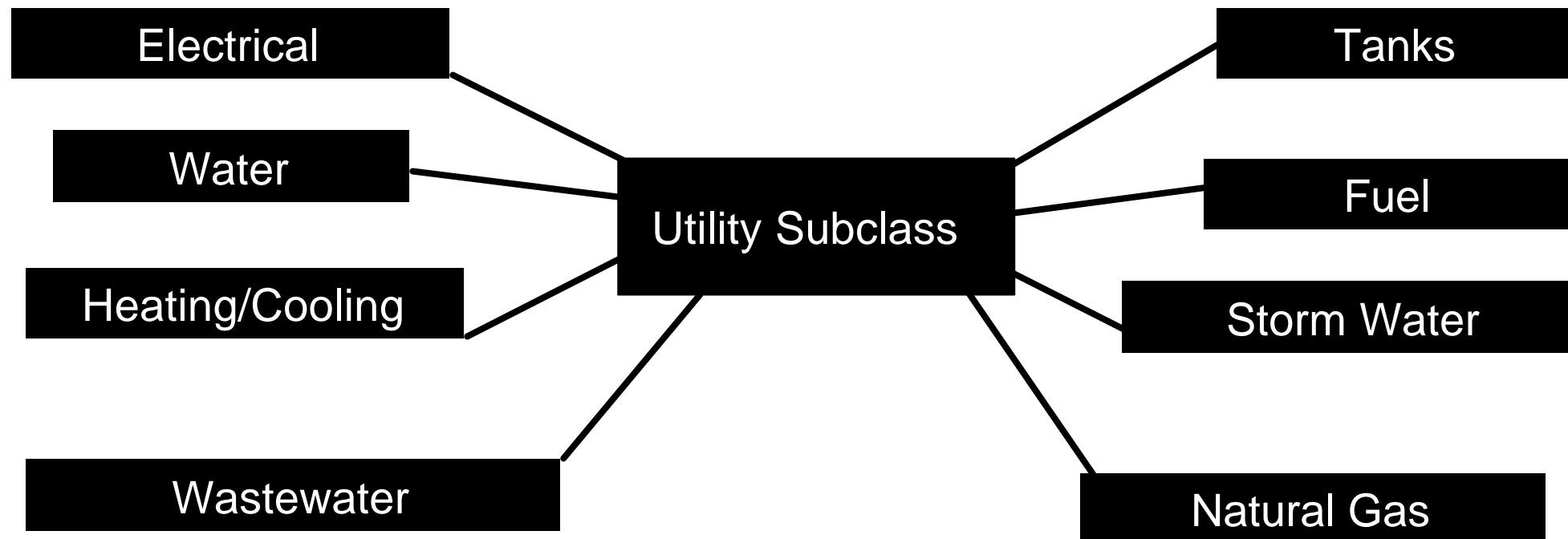
Facility Management Standard (FMSFIE)

Conceptual Facility Class – Utility Subclass Framework (Proposed)

Subclass	Focus Areas
Utility	Water
	Wastewater
	Electrical
	Heating/Cooling
	Fuel
	Natural Gas
	Storm Water
	Tanks

Focus areas align with typical utility related categories and would facilitate migration to Objects. Links to appropriate SDSFIE Entity Types/Attribute Tables and A/E/C CADD Standards Objects will be identified and provided.

Facility Management Standard (FMSFIE)



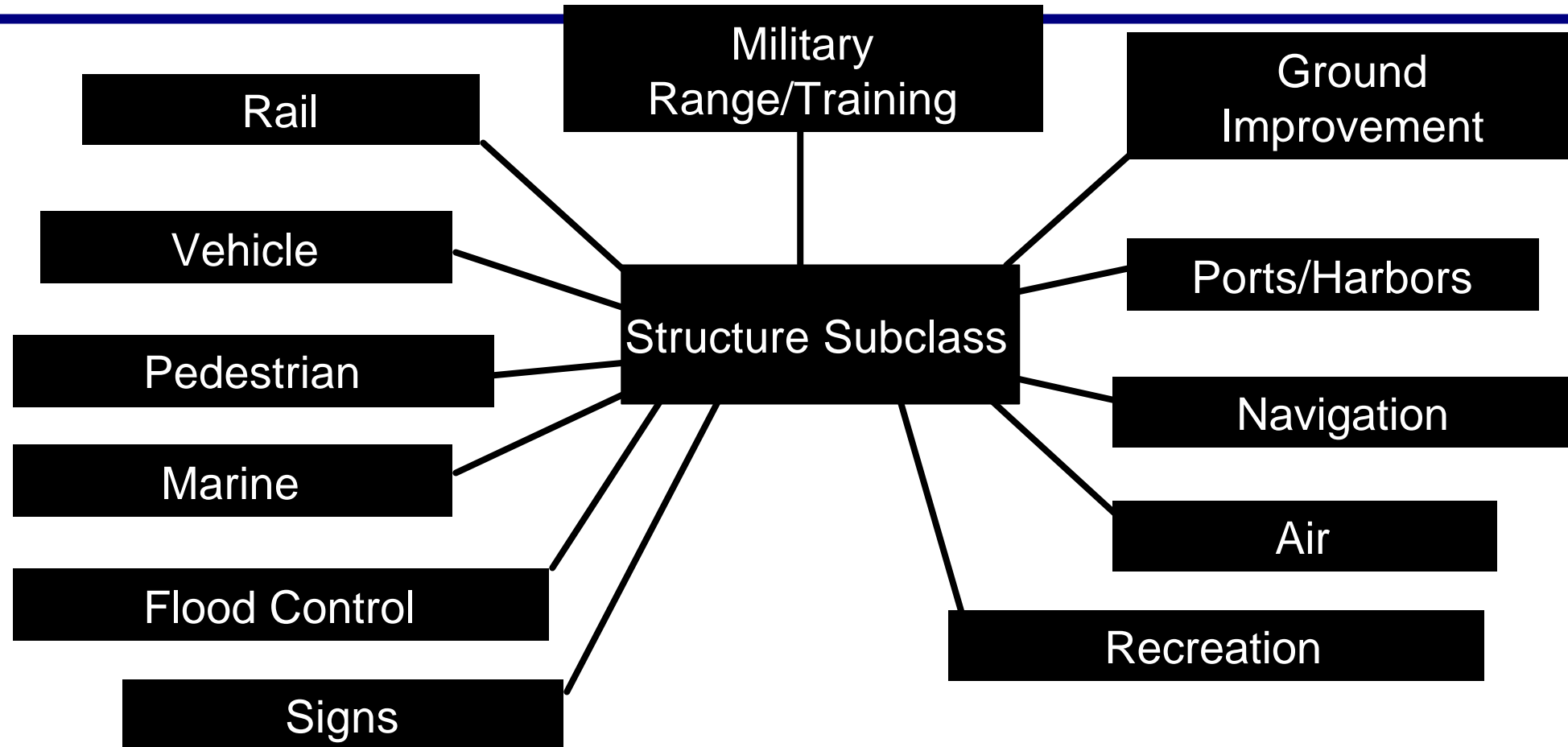
**Conceptual Facility Class –
Utility Subclass Framework (Proposed)**

Facility Management Standard (FMSFIE)

Conceptual Facility Class – Structures Subclass Framework (Proposed)

Subclass	Focus Areas
Structures	Vehicle
	Rail
	Air
	Pedestrian
	Marine
	Flood Control
	Navigation
	Recreation
	Ports/Harbors
	Ground Improvements
	Military Range/Training
	Signs

Facility Management Standard (FMSFIE)



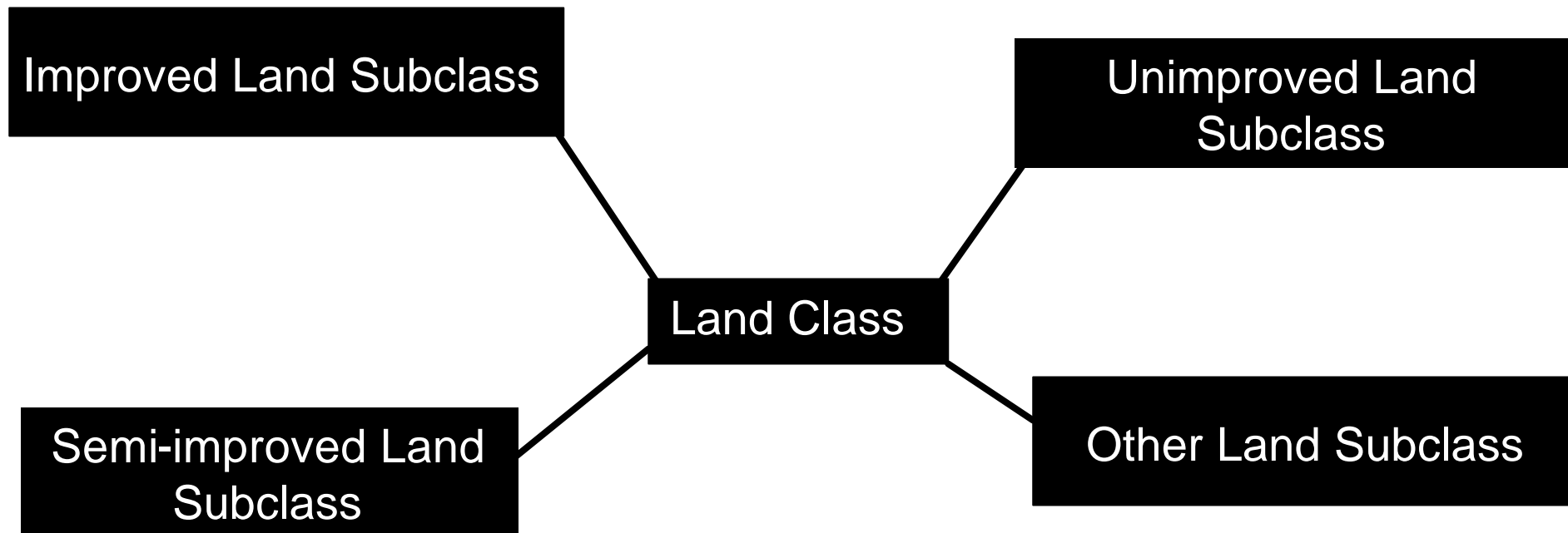
**Conceptual Facility Class –
Structures Subclass Framework (Proposed)**

Facility Management Standard (FMSFIE)

Conceptual Land Class – Subclasses (Proposed)

Class	Subclasses
Land	Improved Land
	Unimproved Land
	Semi-Improved Land
	Other

Facility Management Standard (FMSFIE)



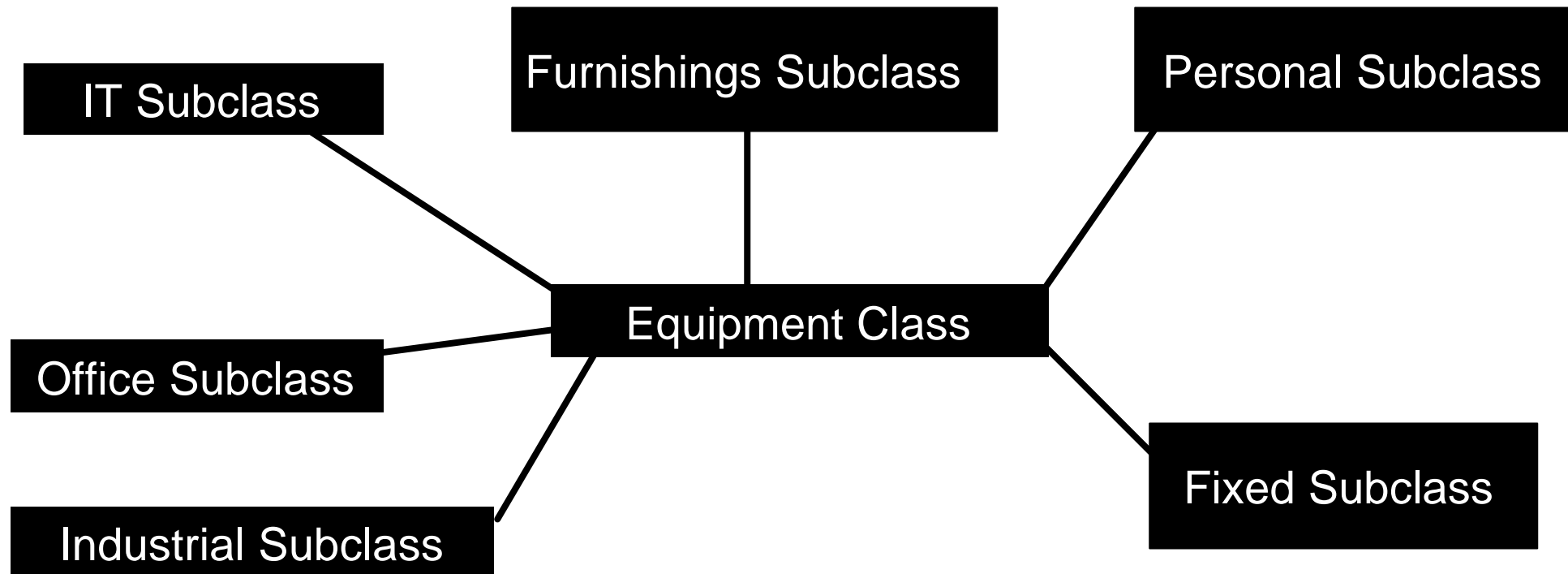
Conceptual Land Class – Subclasses (proposed)

Facility Management Standard (FMSFIE)

Conceptual Equipment Class - Subclasses (Proposed)

Class	Subclasses
Equipment	Information Technology
	Office
	Furnishings
	Personal
	Fixed
	Industrial

Facility Management Standard (FMSFIE)



Conceptual Equipment Class – Subclasses (proposed)

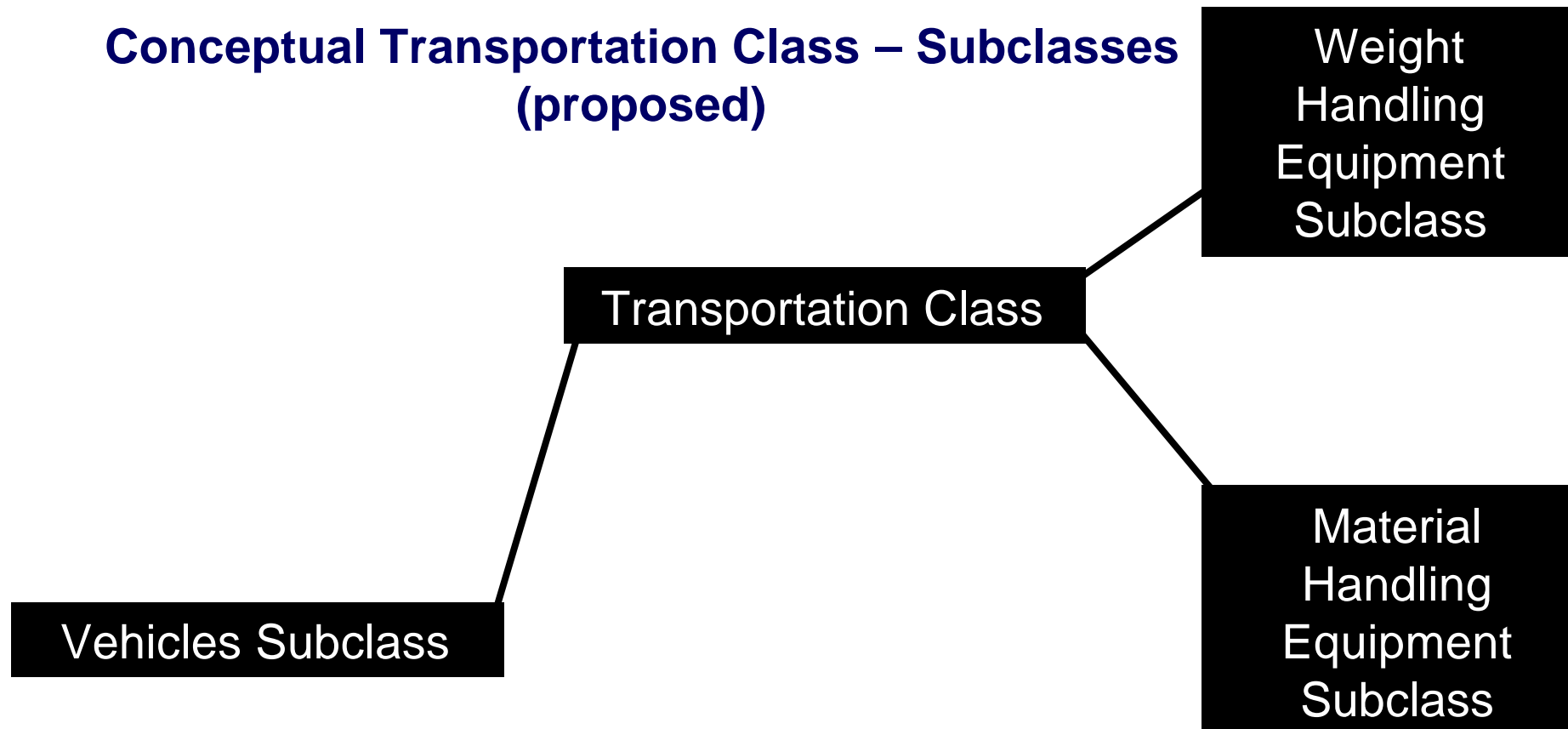
Facility Management Standard (FMSFIE)

Conceptual Transportation Class - Subclasses (Proposed)

Class	Subclasses
Transportation	Vehicles
	Weight Handling Equipment
	Material Handling Equipment

Facility Management Standard (FMSFIE)

Conceptual Transportation Class – Subclasses (proposed)



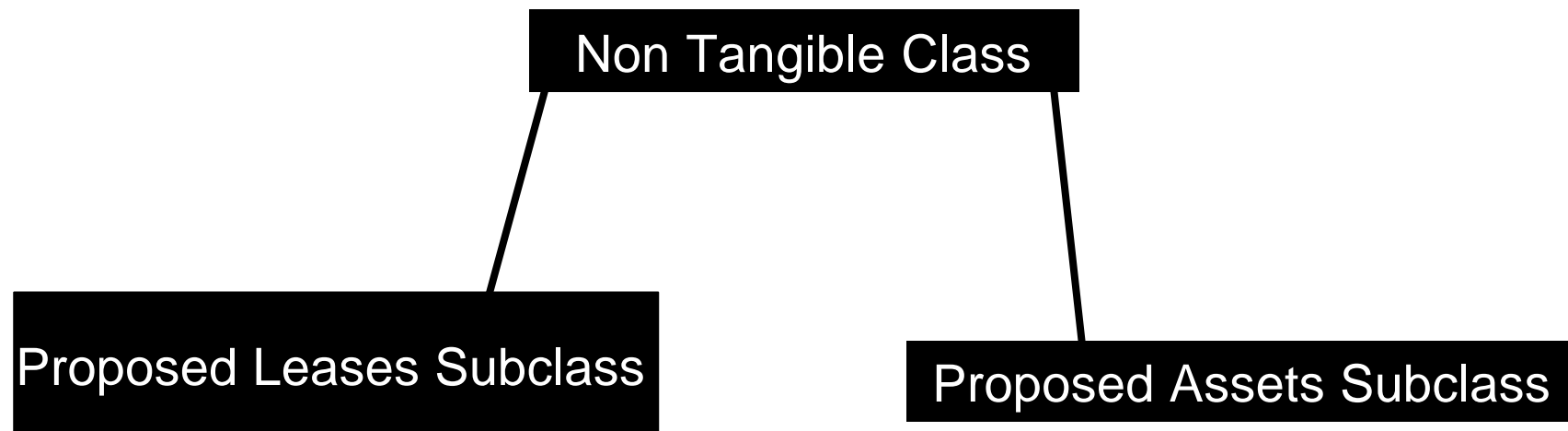
Facility Management Standard (FMSFIE)

Conceptual Non Tangible Class - Subclasses (Proposed)

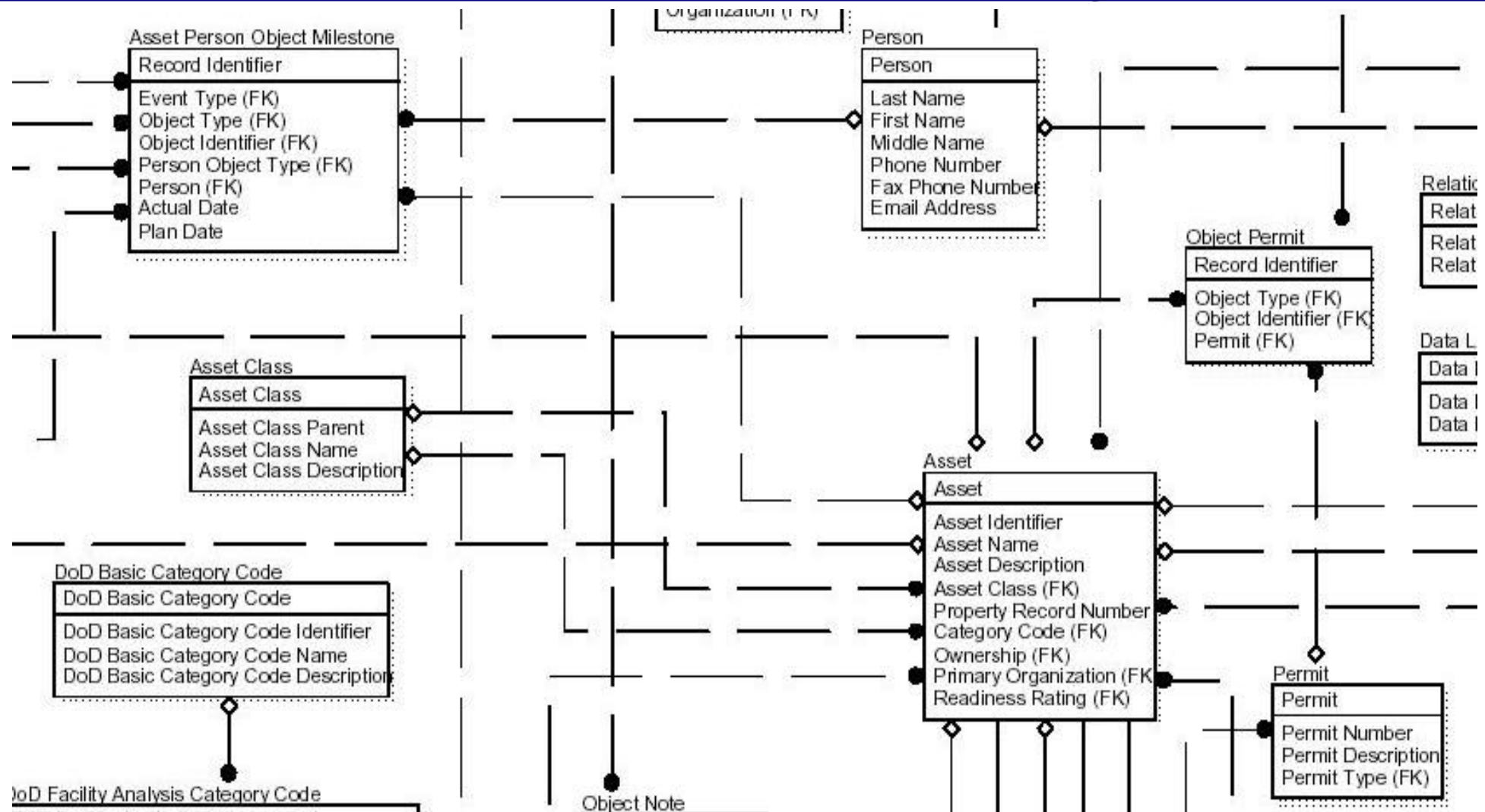
Class	Subclasses
Non Tangible	Proposed Leases
	Proposed Assets

Facility Management Standard (FMSFIE)

Conceptual Non Tangible Class – Subclasses (Proposed)



FMSFIE Data Standard - Summary



QUESTIONS?

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